

# Natural OUTLOOK

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

## NEW LAW TRANSFORMS TEXAS WATER MANAGEMENT AND DROUGHT PLANNING PRESERVING THE FLOW

If water weren't so precious, people wouldn't go to so much trouble to get it.

Take the recent deal Corpus Christi cut with the Lavaca-Navidad Water Authority, for example. When completed, 46,500 acre-feet of water a year—enough water for 415,000 people using about 100 gallons of water per day—will travel underground in a 104-mile pipe through five South Texas counties and under seven rivers before splashing to a halt in thirsty Corpus Christi.

Such interbasin transfers, the diversion of water from one river basin to another, is one of the many issues addressed in the state's omnibus water legislation, Senate Bill 1, which became law early this summer.

Passage of Senate Bill 1 is an important step toward permanent solutions to water supply and quality problems. Shepherded through the session by state Sen. Buster Brown, R-Lake Jackson, and backed by Gov. George W. Bush and Lt. Gov. Bob Bullock, it is one of the most significant Texas water legislation packages of the century.

In developing the legislation, the lawmakers worked closely with such agencies as the TNRCC and the Texas Water Development Board

(TWDB). The document, *Water for Texas Today and Tomorrow—Legislative Summary of the 1996 Consensus-Based Update of the State Water Plan*, was prepared by the TWDB, with assistance from the TNRCC and the Texas Parks and Wildlife Department. Many of the recommendations and management strategies listed in the legislative summary were incorporated into the new legislation.

The new water law also complements TNRCC-administered efforts, such as the Clean Rivers Program and the Source Water Protection Program, that have helped provide Texans with a safe, dependable, affordable supply of water.

The new legislation will enable the TNRCC to "build on its efforts to protect the lifeblood of our state's environmental and economic future," according to TNRCC Chairman Barry McBee. "In cooperation with other agencies and the communities we serve, we will plan and manage this precious resource for both wet and dry years, as well as for the projected demands created by growth."



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**T**he 75th Session of the Texas Legislature adjourned after revising water policy for Texas, improving some of the TNRCC's key programs, and reminding the agency that both money and people are a finite resource in the state.

The TNRCC approached the session with an ambitious group of recommendations, most of which were enacted into law. Three major areas include:

■ The significant revision of water policy in the state by the passage of SB 1, better preparing Texas to address statewide water needs.

■ Revisions to the Environmental Health and Safety Audit Privilege Act of 1995 in HB 3459 satisfied the EPA that the act does not limit TNRCC's enforcement authority and will not conflict with the delegation of such federal programs as the National Pollutant Discharge Elimination System (NPDES) Program.

■ The consolidation of the TNRCC's statutory framework to increase consistency among programs. The enactment of Senate Bill 1 is expected to result in improved water planning for the entire state, as well as a greater understanding of water availability on a local, regional, and statewide basis.

The legislature adopted measures to encourage the cleanup of Superfund sites through the TNRCC's Voluntary Cleanup Program, consolidated many of the key laws that guide the agency, and established a general permit program for wastewater discharges that will facilitate permitting while maintaining water quality standards. The EPA's concerns with the environmental audit programs were addressed, removing a barrier toward continued delegation of federal programs.

While the agency received much of its request for funding, the agency's limit on employees included in the appropriations

act was reduced by 236 people, to 2,973. All state agencies shared in employee reductions to some degree.

A few issues remain to be addressed in the future. The TNRCC's tire recycling program was not continued past its sunset date of December 31, 1997. Also, no additional money was allocated to deal with closed landfills that pose a threat to public health and safety.

Here is a summary of several TNRCC-initiated bills that were approved:

**Consolidated Enforcement:** SB 1876 consolidates the TNRCC's enforcement penalties and authority, making penalties consistent across most programs. The legislation also includes provisions on emergency orders and temporary orders.

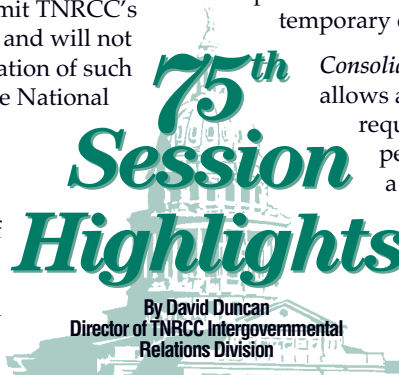
**Consolidated Permit:** HB 1228 allows a permit applicant to request that all relevant permits be consolidated into a single permit with a consolidated permit procedure.

**Environmental Audit:** HB 3459 amends the Environmental, Health, and Safety Audit

Privilege Act to address EPA's concerns that the act limits enforcement authority. The EPA has agreed that these changes clarify that the act does not limit enforcement authority and thus will not conflict with the delegation of federal programs to the TNRCC.

**General Permits:** HB 1542 establishes general permits for wastewater discharges, replacing the current system of permit-by-rule for minor wastewater discharges.

**Superfund Revisions:** HB 2776 encourages responsible parties to clean up potential Superfund sites through the Voluntary Cleanup Program. The bill also grants an exemption from liability to lenders or fiduciaries not involved in the daily management of the site.



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## A Blueprint for Tomorrow's Water

The centerpiece of the legislation is a requirement for local, regional, and statewide water users to conserve water, prepare for drought, and ensure adequate freshwater flows for rivers and bays. As Bullock put it, the law provides a "blueprint for a comprehensive plan to protect the resource most vital to future generations of Texans." The state budget includes \$34 million to pay for the first stages of the plan over the next two years.

The law requires the TWDB to adopt a comprehensive state water plan every five years, beginning no later than Sept. 1, 2001. The TWDB will designate regional water planning areas by Sept. 1, 1998. In turn, each regional water planning group will prepare a water management plan based on public input and local water plans developed by such entities as water suppliers, water rights holders, and groundwater districts.

"The most pleasing part of the new legislation is seeing Texas place a priority on conservation and on planning for drought at a local level," said TNRCC Commissioner John Baker. "A cookie-cutter approach won't work in Texas, with our diverse geographic and climatological regions."

The legislation's local control focus has a distinctive Texas flavor, according to Chairman McBee.

"This is a state that is careful about adding extra bureaucratic helpings to local govern-

ment's plate," he said. "The lawmakers did not want to add to the burdensome regulations local officials already have to deal with. At the same time, everyone realizes that this kind of long-term planning is something that has to happen."

## Qualified Support

The legislation, which received widespread

bipartisan support, also garnered some mixed reviews.

Monte Akers, director of legal services for the Texas Municipal League, is unhappy with new reporting requirements for city utilities and an amendment that limits the authority of cities to regulate water supplies outside their jurisdictional authority.

Yet Akers acknowledges that "the next time there is a drought, if the planning mechanisms put

in place by this bill prove to be workable, there will be people singing praises of those who drafted it."

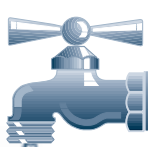
Environmental groups supported the drought preparedness and planning aspects of the bill and lobbied for it to include irrigation districts, said Cyrus Reed, project director at the Texas Center for Policy Studies. The final version does include the districts.

Reed worked with the Sierra Club and other groups with environmental concerns to ensure that the water legislation incorporated opportunities for public input, review, and

*"The most pleasing part of the new legislation is seeing Texas place a priority on conservation and on planning for drought at a local level . . ."*

TNRCC Commissioner  
John Baker

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***"We were particularly concerned that watershed regional planning groups and interbasin transfers should include hearings and other changes for the public to get involved."***

Cyrus Reed  
Texas Center for Policy Studies

participation at all significant stages of water planning and management.

"We were particularly concerned that watershed regional planning groups and interbasin transfers should include hearings and other chances for the public to get involved," Reed said. "There are still concerns, but we feel that the final version does provide for public participation."

Since the water legislation was introduced, the League of Women Voters of Texas consistently pushed its position that water planning must be conducted within the context of comprehensive planning.

"It is not enough to look at population growth," said Mary Arnold, the League of Women Voters' spokesperson on water quality. "The planners must consider what population growth will mean in terms of such factors as schools, employment, and the economy."

While the final version of the legislation did not stipulate such a broad-based approach, Arnold is optimistic that the greater context will be provided by the communities that get involved in local and regional water planning.

### **Status of Interbasin Transfers**

Under the new law, interbasin transfers will continue, but existing water rights that are amended to allow for an interbasin transfer will become junior to other water rights in the basin of origin to the extent of the transfer. This could make water availability from such transfers unreliable in a drought, when most needed. For example, if a city obtains water from another river basin through an amendment to an existing water right, that allocation could be affected or cut off in times of drought because other water rights in the basin of origin would have first call on the water.

For the time being, the legislature has established a joint legislative committee to study the state's future water and wastewater infrastructure needs and how to fund such projects. The committee will also look at how changes to the law made by the new legislation affect these planning and project selection decisions.

Bill Powers, state legislative director for the Texas Farm Bureau, is glad the legislation will cause more open discussion before an interbasin transfer is approved. "Now there will be more public information and public meetings before a transfer," he said. "Additionally, the receiving basin must show that they have done everything they can do in terms of conservation before they receive the water, and there are safeguards to ensure that the basin of origin will be compensated."

### **The Water Below Us**

The new legislation streamlines the formation of new groundwater districts, cutting the time it takes to establish a district from a maximum of three years to about 18 months. The quasi-governmental bodies are established by the TNRCC or the legislature and are assigned the powers and duties to manage groundwater in a defined area. Generally funded by local property taxes, the districts emphasize local control of the resource.

The law also provides the means to ensure that groundwater districts are more than plans on paper. Designated districts must develop a water management plan, get it certified by the TWDB, and eventually submit to a performance review by the State Auditor.

Some groups have questioned why the new legislation preserves the rule of capture outside the groundwater districts. Under the

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# OPTIMUM SOLUTION

## Greenville optimizes water treatment plant

**A**fter the Greenville water treatment plant was renovated in 1993 at a cost of \$7.6 million, customers in the community of 24,000 people northeast of Dallas still complained of water that did not look or smell good.

"Despite the expensive renovations, we experienced problems in the hot months because of our water supply," said Ed Thatcher, Greenville city manager. "It is not a pass-through reservoir, so it gets stagnant in hot weather. There were also problems with turbidity [cloudiness due to sediment or other suspended material]."

Embattled city administrators were enthusiastic when a team from the TNRCC and the EPA invited Greenville to serve as a pilot project in the Texas Optimization Program.

"The timing was really good for us," Thatcher said. "We needed the technical support to learn how to use the renovated facilities to maximum potential. The water plant cost a lot of money, and the residents were not seeing results."

In Texas more than 12 million people receive all or a portion of their drinking water from 370 community surface water treatment plants—most of them not as up-to-date as the one in Greenville. All are potentially vulnerable to such contaminants as wastewater discharges and runoff from animal feeding operations that can introduce disease-causing organisms into water used by the plants.

Since building new plants with advanced technology is prohibitively expensive for most communities, the best option is for plants to be operated at performance levels stricter than current requirements. Optimized performance can prevent

small, chlorine-resistant organisms, such as cryptosporidium and giardia, from slipping through the treatment process.

As a result, EPA has been pursuing a strategy of treatment plant optimization to reduce the risk of waterborne disease through cost-effective improvements. Due to Texas' historic leadership role in regulating surface water systems, the EPA chose the state as one of the first pilot optimization programs in the country. In three years, an infrastructure has been created to provide optimization training and technical assistance to Texas water utility professionals. To date, optimization assessments have been performed at 20 surface water treatment plants in the state.

Greenville's participation in the program has helped it meet a performance standard four times stricter than current

regulatory requirements, according to Chuck Schwarz in the TNRCC's Tyler Regional Office. "In doing so, Greenville has become one of the first cities in Texas to achieve optimized performance



goals and provide maximum protection against a waterborne disease outbreak," he said.

Larry Olson, director of water utilities for the city of Greenville, believes the greatest benefit from the program has been "the assurance of safety. We have got the turbidity down so low that it makes it unlikely that health problems such as cryptosporidium can pass through the filters.

"The state and EPA have talked a lot about 'partnership' in recent years," Olson said. "This is an example of a true partnership between a municipality and regulators."





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rule, landowners are free to draw virtually unlimited amounts of water from beneath their property, regardless of the effects on other landowners.

"The rule of capture is the law of the biggest pump," said James Kowis of the TNRCC Water Policy Division. "In most groundwater districts, the doctrine of reasonable use applies. Reasonable use means I can use as much water as I need as long as it doesn't negatively affect the people around me. Rule of capture provides no management. Reasonable use provides a community-oriented, collaborative style of management that is locally controlled."

Chairman McBee believes that the state is moving toward a process that results in marketable, sellable rights that provide access to groundwater.

"The marketplace can be used to distribute the water more efficiently than a regulatory scheme," McBee said. "We support the concept of a market-based approach with adequate environmental safeguards."

### **Funding Texas Water**

The legislation takes the first step toward addressing the more than \$60 billion estimated for long-term needs to upgrade water and wastewater systems. A two-year interim legislative committee has been directed to hold hearings and develop recommendations on financing needed improvements.

The actual cost of the new legislation for Texas won't be determined until the assessment period ends and the problems have been identified, according to Dean Robbins, assistant general manager of the Texas Water Conservation Association.

"The payoff will be that more citizens in this state will have dependable, safe water supplies," he said.

Environmental groups, however, have been concerned about the overall funding for water projects in Texas. Mary Arnold of the League of Women Voters of Texas said that financing remains an issue now that the bill is law.

"The League recognizes that there has not been enough money dedicated to water issues in the state," she said. "We'll be watching in the future to make sure that funding is provided for implementation."

Companion legislation, Senate Joint Resolution 17, would consolidate four bond project fund authorizations—for water development, water quality, flood control, and state participation in water projects—approved by voters over the years. The consolidation, which would have to be approved by voters in November as a constitutional amendment, would form a single financial assistance pool of \$1.2 billion—the Texas Water Development Fund II.

"This will allow us to be more flexible and efficient in our ability to fund projects," said Tommy Knowles, deputy executive administrator of the TWDB. "For example, there may be \$400 million for flood control no one is using that might be better used for needed water development. By using already authorized bonds, the consolidation would allow us to be able to keep funding the growing water needs of cities without increasing the state's debt level."

Cyrus Reed observes that environmental organizations are concerned about the proposed consolidation. "It's an accountability issue," he said. "Voters approved bonds for flood control, water quality, and supply. We want to make sure that flood control and

***"We support the concept of a market-based approach with adequate environmental safeguards."***

TNRCC Chairman  
Barry McBee

water quality will be dealt with as well as water supply.”

### Safe, Dependable Water Systems

The new legislation (SB 1) expands financial assistance for public water systems through two smaller funds under the Safe Drinking Water Revolving Fund (SDWRF) administered by the TWDB. These funds are comprised of approximately 80 percent federal dollars and 20 percent state appropriations. Previously, only political subdivisions could use the revolving fund for water projects. Now all community water systems are eligible, including investor-owned and nongovernmental nonprofit utilities. The legislation also authorizes assistance to disadvantaged communities.

Many private utilities have problems with both water quality and quantity. Most have not been able to access state financing or adequate private financing to improve operations. Before, about half the systems that the TNRCC found to be noncompliant with state drinking water standards were ineligible for SDWRF money. Expanding eligibility will allow operators to bring more systems into compliance and provide consumers with adequate drinking water service at an affordable price.

One important outcome of the new legislation is that it will give the TNRCC more authority to scrutinize the business plans and financial viability of new proposed systems, Robbins said.

“The agency’s focus will be on expanding existing systems rather than creating new systems,” Robbins said. In other words, if a developer wants to build a water system in a suburban or rural area, the TNRCC may require that it be connected to a neighboring

system if that is more practical and cost-effective.

### Complementary Legislation

Overall, the initiatives established by the new water legislation will complement and reinforce ongoing water programs. The TNRCC’s efforts to provide and ensure clean drinking water for the state of Texas go beyond monitoring and sampling. Examples of primary outreach activities include:

- The *Technical Assistance Program* contracts with two nonprofit organizations, the Texas Rural Water Association (TRWA) and the Community Resource Group, to provide technical help to small- and medium-sized communities that do not yet have the infrastructure to manage water and wastewater.
- The federal Safe Drinking Water Act requires that the state develop a *Capacity Development Program* in which TNRCC staff assess public water systems and follow up with support in developing financial, managerial, and technical capabilities.
- The *Source Water Protection Program* is a community-based approach to protecting sources of drinking water from contamination, particularly by unregulated potential sources.
- The *Cross-Connection Control Program* focuses on potential health hazards caused by

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## SB 1 Highlights

**Drought Management:** The TNRCC will issue rules requiring that wholesale and retail public water suppliers and irrigation districts develop drought contingency plans. Certain water rights holders will be required to submit water conservation plans, which must include drought plans. A State Drought Response and Monitoring Committee will be created, including representatives of the Governor’s Office, Division of Emergency Management; the TWDB; the TNRCC; and other agencies.

**Strategic Data:** The TWDB will develop a statewide water resource data collection and dissemination network sufficient to support assessment of existing water conditions. The TNRCC will develop updated water availability models for six river basins by the end of 1999, and for the remaining basins by the end of 2001. On Sept. 1, the Texas Geographic Information Council will be created to provide strategic planning.

**Interbasin Transfer:** The TNRCC has been given specific criteria to use in deciding whether or not to authorize an interbasin transfer, such as: the need for water in the basin of origin and receiving basin; availability of alternative supplies in the receiving basin; and proposed efforts by the receiving basin to avoid waste and implement water conservation and drought contingency measures.

**Tax Break:** The current sales tax exemption for the purchase of pollution control equipment has been expanded to include certain water conservation, water reuse, or wastewater treatment equipment used to reduce water use and waste of water from commercial manufacturing, processing, fabrication, or repair operations.

**Reuse of Treated Water:** Water rights holders may use and reuse water prior to its return to a stream. Any person who wishes to discharge, divert, and reuse their existing return flows must obtain authorization from the TNRCC. The authorization may allow for diversion and reuse of existing return flows less carriage losses (due to causes such as evaporation) and subject to special conditions. In granting a new water right, the TNRCC can require the return of surplus water to a watercourse as necessary to protect senior downstream water rights and the environment.



## PRESERVING THE FLOW

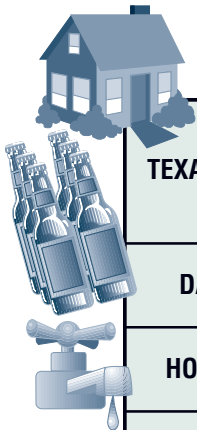
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backflow in water systems, which can be caused by factors such as low water pressure due to firefighting or a break in a city main. With inspections and public outreach, the TNRCC works to raise awareness and limit the number of domestic and industrial "cross-connections."

- The *Vulnerability Assessment Program* (VAP) identifies water systems that are vulnerable to certain types of contaminants. The National Primary Drinking Water Regulations require extensive chemical testing of public wells and surface water systems, but also specify contaminants that are eligible for monitoring waivers. The assessments enable the VAP to issue technically defensible monitoring waivers for those systems that are not vulnerable. Where waivers are not feasible,

the agency ensures that vulnerable public water supply sources are sampled for the appropriate contaminants. Since January 1993, the VAP has saved public water supply systems in the neighborhood of \$50 million in unnecessary sampling costs.

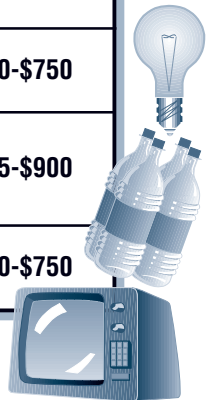
In dealing with local water and wastewater systems, the TNRCC water programs have consistently made environmental protection and conservation top priorities. The agency has supported utilities in their efforts to balance reasonable rate structures with community needs such as maintaining adequate revenues, meeting water conservation objectives, providing for low-income user relief, and promoting equity and economic development.



## WATER: A FRACTION OF TEXAS FAMILY MONTHLY BUDGETS

TEXAS CITIES	DRINKING WATER (10K gallon usage)	WASTE WATER (10K gallon usage)	TV CABLE SERVICE (Basic extended package)	ELECTRICITY (Family of 4 / energy efficient 3BDR house)	RENT (3 BDR house / 1400 sq. ft.)
DALLAS	\$17.00	\$30.00	\$29.44	\$85-\$100	\$600-\$750
HOUSTON	\$29.00	\$32.00	\$32.02	\$85-\$120	\$900-\$1200
TYLER	\$21.00	\$16.00	\$30.51	\$50-\$150	\$650-\$750
CORPUS CHRISTI	\$19.00	\$24.00	\$31.00	\$150-\$225	\$825-\$900
EL PASO	\$12.00	\$12.50	\$30.26	\$60-\$150	\$550-\$750

A sample of living costs in five Texas cities shows that drinking water remains one of the most affordable essential services in the state. Compared to the cost of a gallon of bottled drinking water (approximately a dollar) or a six-pack of beer (domestic average is \$4-\$6), a gallon of tap water is a bargain at a fraction of a cent. The rates remain low despite the fact that more stringent regulations and the cost of new technology in recent years have caused most Texas utilities to increase rates to pay for the rising price of providing safe drinking water supplies.



# A BRIDGE OF TRUST ACROSS THE RIO GRANDE

*The growing binational cooperation between Texas and Mexico*

**I**n April 1997, Pierre Lichaa, border programs coordinator for the TNRCC Office of Pollution Prevention and Recycling (OPPR), was invited to Los Pinos, the Mexican presidential residence in Mexico City, for the announcement by President Ernesto Zedillo of the country's new environmental policy.

The invitation symbolized the strengthening relationship between Texas and Mexico as they increasingly collaborate to improve the environment along their shared 1,250-mile border.

"For the past four years, the TNRCC has worked cooperatively with Mexican environmental agencies, and Lichaa's invitation is the most recent acknowledgment that we're moving along the right path," said Diana Borja, TNRCC director of border affairs.

There is a growing focus on the Rio Grande at a time when escalating pressure is being placed on the border environment by a booming population and industrial development. With the exception of a new plant in Nuevo Laredo, for example,

most Mexican border towns do not have adequate wastewater treatment. And in the majority of the more than 1,500 colonias in Texas, residents lack one or all of the basic services such as drinking water and wastewater, a situation that has consequences for both human health and the environment.

TNRCC Commissioner Ralph Marquez, a leader in the efforts of the agency and the state to protect and improve human health and the environment on the border, believes that "we cannot allow population and economic growth in the area to stay ahead of environmental and health infrastructure and solutions. The border is a vital part of Texas, with an impact on culture, society, and the economy that extends throughout the state."

## PURSUING AVENUES OF COOPERATION

In recent years, new and existing avenues of cooperation in the environmental arena—including the Rio Grande Alliance, the Ten-State Retreat (a meeting of U.S. and Mexican state environmental officials), the

U.S.-Mexico Border XXI Program, and the International Boundary and Water Commission (IBWC)—have overcome significant differences in political systems, cultures, and philosophies to produce notable collaborative achievements.

A milestone among international environmental efforts on the U.S.-Mexico border was the Ten-State Retreat, Nov. 17–18, 1996. The international initiative included top environmental officials from each of the U.S. and Mexican border states and was organized at the request of Gov. George W. Bush. At the retreat, hosted by TNRCC

Commissioner Ralph Marquez, each of the 10 participating border states committed to working with at least one neighboring state on issues such as pollution prevention, water conservation, and strategic planning.

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***"We cannot allow population and economic growth in the area to stay ahead of environmental and health infrastructure and solutions."***

TNRCC Commissioner  
Ralph Marquez

# A BRIDGE OF TRUST ACROSS THE RIO GRANDE

The Rio Grande begins as a alpine stream in Colorado and finishes its journey 2,000 miles downstream at the Gulf of Mexico. A second mountain source in the Mexican Sierra Madre Occidental feeds the Río Conchos, which provides more than three-fourths of the flow to the Big Bend of the river. An international border for two-thirds of its length, the Rio Grande has drawn trade, industry, and tourism to its banks.

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The success of the meeting was helped by the fact that Bush is the lead governor on border issues for the Western Governors Association, which has been very supportive of such efforts.

Marquez observes that these cooperative programs show that a "bridge of trust" has been built across the Rio Grande.

"The other U.S. border states now look to Texas as a role model for working with the state and federal governments in Mexico," Marquez

said. "Part of our success in dealing with Mexico stems from the fact that Governor Bush has made economic and environmental progress in the border area a priority for his administration."

Borja notes that even though there is not always a common perspective between Texas and Mexico, "there is discussion that can ease the conflicts that sometimes develop over competition for water. The TNRCC has taken a culturally sensitive, respectful approach."

## WHERE TEXAS AND MEXICO COME TOGETHER

Texas Secretary of State Tony Garza, who grew up in Brownsville, a town shaped by the Rio Grande, believes the growing economy on the border and the influence of NAFTA have made protection of the river basin and environment a priority.

"NAFTA gave both our countries a framework in which to discuss water quality issues," Garza said. "We must commit to conser-

vation and the responsible management of water."

There's a pragmatic reason for Texans to support joint environmental management. The greater part of the water in the stretch of the Rio Grande that borders Texas comes from Mexico. That's particularly true below the confluence of the Río Conchos (which originates in the Sierra Madre Occidental) and the Rio Grande.

In its efforts to prevent and reduce pollution in border communities, the TNRCC is:

- Working with Mexican states to hold operator certification courses for wastewater and drinking water facilities.
- Developing technology exchange and capacity building programs with Mexican federal and state agencies.
- Completing Phase II of the *Binational Study Regarding the Presence of Toxic Substances in the Rio Grande/Río Bravo and its Tributaries along the*

*Boundary Portion between the U.S. and Mexico.*

In its efforts to take actions that result in direct environmental benefits to Texas border communities, the TNRCC has:

- Secured grants (in partnership with the Rural Utilities Service) for installation of private sewer lines in more than 700 colonia households.
- Trained staff of the IBWC and Mexico's National Water Commission (CNA) on surface water quality monitoring techniques.

## GATHERING AT THE RIVER

One of the most promising international environmental initiatives affecting the river basin is the Rio Grande Alliance (RGA). Funded by EPA Region 6 and operated out of the TNRCC Office of Border Affairs, the Alliance supports collaboration among the diverse groups of the Rio Grande Basin concerned with the protection, improvement, and conservation of natural

resources and human health. As the downstream water user, Texas stands to benefit from encouraging and participating in ongoing initiatives with upstream partners. The TNRCC has worked hard to create productive working relationships with Mexico, New Mexico, Colorado, and the tribes and pueblos.

## MONITORING UNDER THE CLEAN RIVERS PROGRAM

Through 1998, the Clean Rivers Program will support more intensive surface water quality monitoring as part of the new system for issuing wastewater permits by basin in a five-year cycle. During this watershed monitoring period, information will be generated that will help verify and quantify water problems and provide a stronger scientific basis for the issuance of discharge permits.

The Clean Rivers Program has also led a multi-agency effort to reduce redundancy in the collection of water quality information

and has been instrumental in training local Texas entities to take on some monitoring responsibilities.

## PARTNERSHIPS WITH MAQUILAS

An important development for water quality in the Rio Grande has been a multinational, collaborative approach to improving the environmental performance of the maquiladoras, the approximately 3,500 foreign-owned plants in Mexico.

"Texas and Mexico have both realized the need to bring the industrial base of the border into partnership with state governments and local communities," Marquez said. "I'm looking forward to the role the maquila industry will play in the joint voluntary effort to improve environmental conditions."

The maquilas are motivated to help their communities because they are labor-intensive industries that want to improve the neighborhoods where they operate and where their

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**"There is discussion that can ease the conflicts that sometimes develop over competition for water. The TNRCC has taken a culturally sensitive, respectful approach."**

Diana Borja  
TNRCC  
Director of Border Affairs



Data Source:  
TNRCC Office of Water Resource Management

# A BRIDGE OF TRUST ACROSS THE RIO GRANDE

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employees live, according to Marquez. As an example, he points out that nearly every school in Matamoros is sponsored by a maquila.

Marquez adds that the maquilas, like American firms, are also concerned about their image. "They care

about the reputation of their business and their brand names," he said. "There are many maquilas doing good things in terms of protecting human health, recycling, and environmental programs."

The TNRCC has supported the maquilas' efforts with site assistance visits. At the invitation of maquila management, members of OPPR's engineering team tour the maquilas with an inspector from Mexico's federal environmental regulatory agency (PROFEPA).

"We make suggestions about areas where they can improve," said Lichaa, explaining that the inspections are performed on a nonregulatory, voluntary compliance basis.

Maquila managers want to participate because they recognize that water is a limiting factor on industrial development in Northern Mexico. With the number of maquiladoras expanding at an annual rate of about 10 percent, conservation must go hand in hand with increased

competition for a scarce resource.

According to the terms of the La Paz Agreement, the waste generated in the maquilas is repatriated to the United States, along with the finished products.

"The more reduction, recycling, and reuse in Mexican maquilas, the less pollution coming into Texas," said David Guarino, program development team leader in the OPPR. "It is a myth that environmental regulation is slack in Mexico. They accomplish great things with scant resources."

## FROM COOPERATION TO JOINT GOVERNANCE

Pete Emerson, a senior economist with the Environmental Defense Fund, believes that the greatest immediate need in the Rio Grande Basin is the completion of wastewater facilities where they are inadequate or don't exist. And the biggest priority is Juárez, he said, which has outgrown its wastewater treatment plant.

From a long-term perspective, Emerson added, there needs to be a more effective regional, binational, basinwide approach to water use, wastewater treatment, recycling, and reuse that includes both surface and groundwater.

"The countries have agreed to cooperate, but there are no real transboundary governance institutions with the authority to get things done," he said.

The two Laredos might serve as a prototype for the kind of binational governance Emerson recommends. The sister cities have demonstrated a strong commitment to boosting water quality in the Rio Grande.

The TNRCC, which plans to open a regional office in Laredo, Texas, has helped both municipalities achieve compliance and enforcement goals. Communities also get involved. Twice a year, for example, volunteers from both sides of the border meet to clean up the banks of the Rio Grande.

"There has been co-operation between the two cities for years on environmental matters," said Raj Guntnur, environmental manager for the city of Laredo.

A recent milestone is a bilateral, five-year environmental plan developed by city planning departments in the two Laredos. Additionally, local levels of fecal coliform in the Rio Grande have dropped since the Nuevo Laredo wastewater plant opened last year. According to Guntnur, about three-fourths of the wastewater collected in the Nuevo Laredo area is being treated.

Such efforts represent real progress, according to Marquez. While he acknowledges that the lack of infrastructure and escalating population often make for an environmentally damaging combination along the border, he laments a common misconception that the Rio Grande is little more than "an open sewer in which to dump waste."

Those interested in reviewing the latest information on the issue can turn to the TNRCC's 1996 Regional Assessment of Water Quality in the Rio Grande Basin, which offers an updated, comprehensive appraisal and evaluation of water quality in the area.

Marquez believes that there is just cause for optimism. "The fact is, the river is getting cleaner. With the construction of new wastewater treatment plants and the cleanup of the wastewater problems in the colonias, we are seeing continuing improvement. There is no denying that advances in international relations in many cases have allowed both sides to identify environmental problems and work together to find solutions.

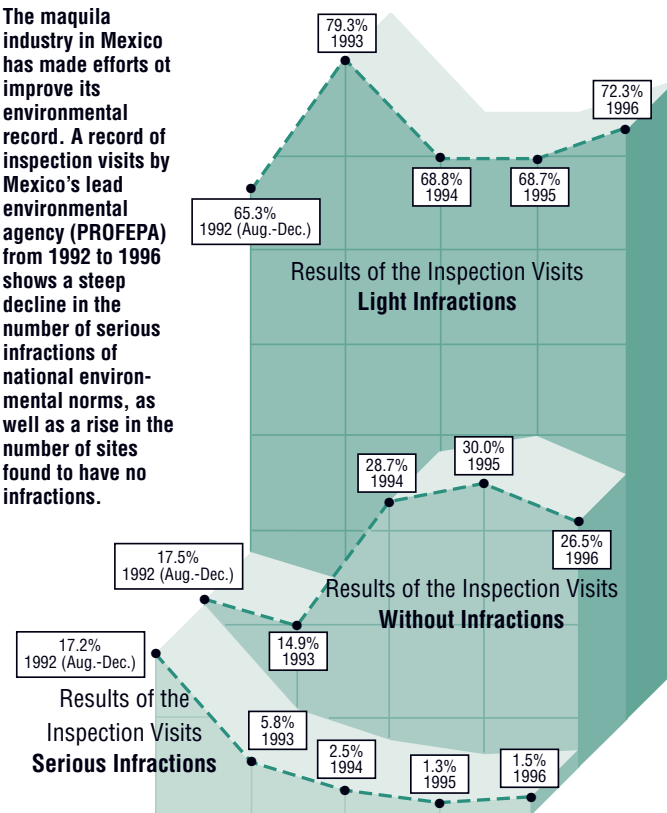
"The relationship developing between Texas and Mexico will pay big dividends in the future, but it is also paying off right now for people on both sides of the border."

**"The fact is, the river is getting cleaner. With the construction of new wastewater treatment plants and the cleanup of the wastewater problems in the colonias, we are seeing continuing improvement."**

TNRCC Commissioner  
Ralph Marquez

## MAQUILAS IMPROVE COMPLIANCE

The maquila industry in Mexico has made efforts to improve its environmental record. A record of inspection visits by Mexico's lead environmental agency (PROFEPA) from 1992 to 1996 shows a steep decline in the number of serious infractions of national environmental norms, as well as a rise in the number of sites found to have no infractions.



Data Source: Office of the Attorney General for the Environment (PROFEPA)

## Pueblo Nuevo

# The colonia that helped itself

*Texas STEP galvanizes community to solve its wastewater problem*

**P**ueblo Nuevo, a low-income community south of Eagle Pass, lives up to the promise of its name. “New Town” is not afraid to take on something new.

Pueblo Nuevo is one of the 1,500 colonias—unincorporated, rural communities that lack basic services such as running

Colonia leaders decided not to wait. When they learned about the Texas Small Towns Environment Program (STEP), which empowers small communities to achieve cost-effective solutions to water and wastewater problems, they jumped at the chance to participate.

At a meeting of the colonia, Norma Garza, Fernando Muñoz, and Juanita Rodriguez encouraged neighbors to support the self-help project. It required a shift in thinking, said Garza, director of a Texas Migrant Council Head Start School in a neighboring colonia. “People are used to having government take care of such things,” she said. Yet the consensus was a resounding “yes!”

With Texas STEP, communities use their own knowledge, labor, and skills, albeit with some support from engineers and limited government assistance. Modeled after a program developed by the Rensselaerville Institute, a community development organization near Albany, N.Y., STEP water and wastewater projects

drawing on qualities like personal initiative and responsibility,” Marquez explains. “STEP empowers people to solve problems—faster and more economically than anyone else can do.”

George Freitag, TNRCC STEP coordinator, believes that the elements essential for the success of a STEP program are present at Pueblo Nuevo.

“It works best in communities where residents believe that they have the problem, not the state or other outside forces, and that there is a reasonably urgent need to solve it,” Freitag said.

He added that Pueblo Nuevo is also blessed with a trio of “spark plugs”—Garza, Muñoz, and Rodriguez—who are the local people who galvanize the citizens and drive the project. In the colonia, volunteers provide almost all the labor for the wastewater project.

The TNRCC’s STEP partners include the Texas Department of Housing and Community Affairs, the Texas Department of Health, the Texas Water Development Board, the General Land Office, and the Rensselaerville Institute. Pueblo Nuevo’s primary liaison with state government has been Kassie Sutton, a program director with the Department of Health.



*A friendly neighbor offers refreshment to laborers on Pueblo Nuevo’s self-help project. Texas STEP promotes community empowerment, self-reliance, and unity.*

Muñoz reports that businesses supplying equipment for the project have cut Pueblo Nuevo some good deals.

“Many folks support what we’re doing,” Muñoz said, “because they understand that we are trying to make our neighborhood a safer place to raise families.”



*On a caliche road in Pueblo Nuevo, STEP “spark plugs” Juanita Rodriguez, Norma Garza, and Fernando Muñoz (back row, left to right) pose with children from the colonia in front of the construction site where pipe is being laid to collect wastewater.*

water and sanitation—that 360,000 Texans call home.

The immediate problem in Pueblo Nuevo is failing or absent septic tanks. The colonia first looked to the government for help but was told that aid would be delayed for several years.

have cost up to 64 percent less than conventionally installed systems.

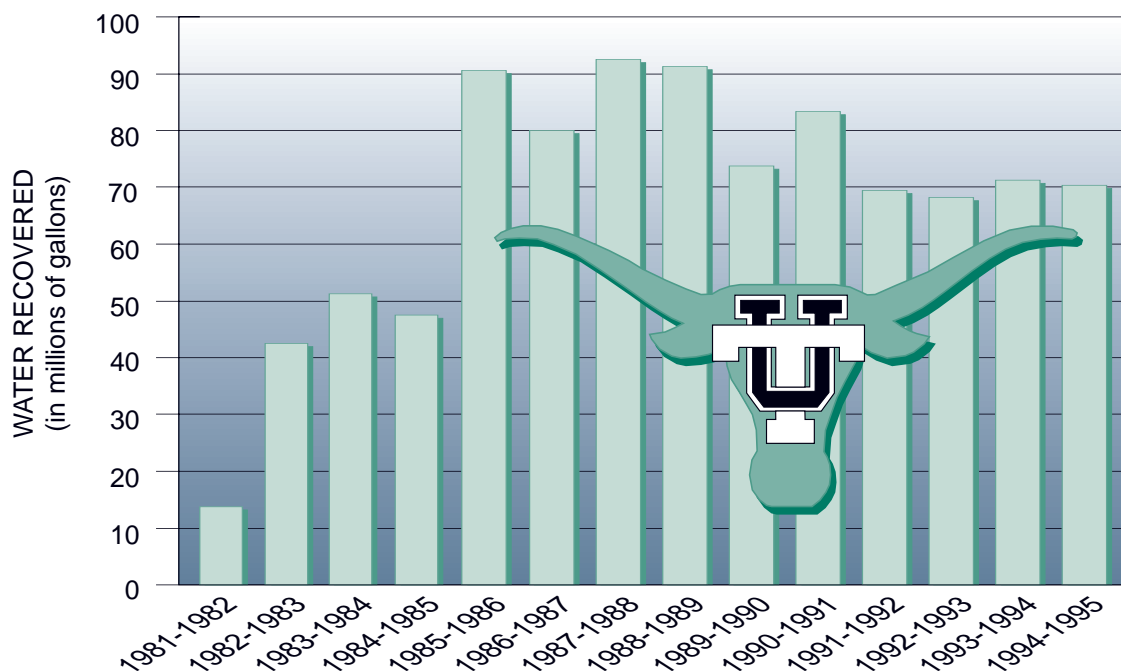
One of the strongest STEP advocates has been TNRCC Commissioner Ralph Marquez.

“Rather than relying on government bureaucracy, the program marshals the resources that are right there in communities,

W

hat started as a trickle at the University of Texas at Austin in 1980 has become a flood in the late 1990s. UT's water recovery program, which recycles water used by researchers through more than six miles of piping, began with a few hundred gallons a month in 1980 and has swollen to several million gallons a month in recent years. Consisting primarily of cooling water reclaimed from hundreds of pieces of research equipment on campus, the recovered water is pumped to the university's cooling towers to replace water lost through evaporation. This helps prevent or forestall the use of additional water. To date the program has cost \$300,000, but it has recycled nearly 1 billion gallons for a total savings of more than \$2.9 million. The UT-Austin water recovery program was a finalist in the 1997 Governor's Awards for Environmental Excellence, sponsored by the TNRCC's Office of Pollution Prevention and Recycling.

## LONGHORNS SCORE BIG ON WATER CONSERVATION



Data Source: TNRCC Office of Pollution Prevention and Recycling



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